UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,558	05/07/2001	Borkur Arnvidarson	P66611US0	8740

136 7590 12/16/2003

JACOBSON HOLMAN PLLC
400 SEVENTH STREET N.W.
SUITE 600
WASHINGTON, DC 20004

EXAMINER	
ZEMAN, MARY K	
ART UNIT	**PAPER NUMBER**
1631	

DATE MAILED: 12/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/830,558	ARNVIDARSON, BORKUR	
	Examiner	Art Unit	
	Mary K Zeman	1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *80-123* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *80-83,85-92,94-96,98-116 and 118-123* is/are rejected.

7)☒ Claim(s) *84,93,97 and 117* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 May 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claims 80-123 are pending in this application. Claims 1-79 have been canceled.

This application is a national stage application of PCT DK99/00606. The IB has forwarded the appropriate copies of the priority documents. The file has been carefully reviewed, including documents cited on the international search report, and the international examination report.

Information Disclosure Statement

The information disclosure statement filed 8/24/01 has been entered and considered. An initialed copy of the pto-1449 is enclosed with this action.

Drawings

The drawing filed with the application is acceptable to the examiner.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 81-83, 85-87, 90, 94-96, 98-105, 108-111, 113, and 118-122 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd.

App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). **In the present instance**, many of the claims recite the broad recitation "preferably", and the claims also recite "more preferably" which is the narrower statement of the range/limitation. Further, in claim **82**, a series of sizes of particles, each more limiting than the last are recited. If limitations of each size are desired, each size clause should be in a separate dependent claim.

In the claims which merely recite "preferably" it is unclear if what follows the term is actually limiting of the claim. If each of the narrower limitations are intended, it is suggested that the claim be broken into several narrowing dependent claims.

Many of the claims recite one of "substantially", "substantially before and/or after", "substantially solid", "substantially non-aqueous", "substantially freeze-dried", "substantially disposable", "substantially partly determines", "substantially different", "substantially larger", "substantially simultaneously", or "substantially representing". It is entirely unclear how the "substantially" is to be interpreted, or how it is to modify the clauses that follow.

The following claims recite improper Markush language: 83, 85, 86, 95, 96, 98, 101, 109, 110, and 119. Examples of proper Markush language include "selected from the group consisting of A, B and C" and "comprising one of A, B or C." The claims should be thoroughly reviewed to comply.

Many of the claims recite multiple "and/or" clauses which, in combination, make it unclear what exactly is intended to be a limitation of the claim.

Claim 98 contains the trademark/trade name "TOTO™", "Hoechst", and "YO-PRO™". Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe a chemical dye and, accordingly, the identification/description is indefinite.

Claim 99 contains the trademark/trade name "Triton X-100". Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe a detergent and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 80-83, 85-92, 102, 103, 105-116, 120-123 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grauptner (WO 98/04119; PTO-1449) in view of Packard et al. (1993).

The rejected claims are drawn to methods of and systems for regulating a milking process wherein an assessment of a particle or physical property of a particle in a milk sample is used to regulate a milking process. The particle can be: somatic cells, blood particles or particles containing body tissue. A further chemical or physical property of the milk can be done "substantially simultaneously" and the property can be an estimation of the concentration or level of fat, protein, lactose, pH, or a measurement of the temperature, conductivity or light scatter. The assessment can be done for individual quarters of milk at various points. The control means can direct the milk to various outlets or storage means. The assessment is done on undiluted milk samples, at early times in the milking, at least before 100mL is milked. The assessment is done in a portion of the system that therefore regulates the size of the sample. And the result of the assessment can then be used to control the milking process.

Grauptner et al. (WO 98/04119 A1) disclose methods of and systems for regulating a milking process. This process identifies a volume of milk, assesses a property of the milk through conductivity, obtains a result of the assessment, provides a predetermined milk quality parameter, correlates the step of the assessment with the predetermined milk quality parameter, transfers the correlated result to a regulation means capable of regulating the milking process, and regulates the process based upon the correlated result. The disclosed methods and systems provide for testing of individual quarters of milk, at various times, before or after the individual animal is identified, directs the milks to one or more outlets or storage means, and stores the assessment data in an appropriate manner. Portions are substantially disposable, and physically limit the size of the sample. The physical attributes of the disclosed system meet the limitations of the system of the rejected claims 107-116 and 120-123.

Grauptner et al. do not teach the assessment of particles within the sample of milk wherein the particles are somatic cells, blood particles or particles of body tissue. Grauptner does not teach the further assessment of temperature and/or pH or assessment of fat, protein, or lactose concentration.

Packard et al. (Packard et al. (1993) Journal of AOAC International Vol. 76, No. 2, pages 297-305) disclose the automated sampling and assessment of several milk properties. Packard et al. analyze milk samples for somatic cell count, fat content, protein content, lactose content, and other solids content in samples taken automatically. The results of these analyses were not statistically significantly different from the analyses of samples taken manually. The automated sampling was found to provide results that were as accurate as the manual sample, and the automated sampling methods were adopted as a standard by the AOAC. Packard notes that the assessments were done by well known, often performed methods (p299, second full paragraph) which appears to be the same methods as those encompassed by the claims. Counting of somatic cells in the milk is well known to identify cows that may have mastitis, or some other infection.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have added a means for particle assessment to the method and system of Grauptner. One would have been motivated to have added such a step and means for the step to have better assessed the quality of milk being pumped. The earlier that problems with the milk being pumped could have been identified, the earlier steps could be taken to deal with the problem:

such as stopping the milking of a cow that has mastitis. One of skill in the art would have wanted to stop the milking of an infected cow so that the affected milk would not have reached a pooled tank and rendered the tank affected. As the methods and systems of Grauptner already provide for a portion of the system for the analysis of a volume of milk, the further analysis of a particle, cell or milk property would have been well within the level of skill on one in the art, and one of skill in the art would have had an excellent expectation of success at being able to perform the added analyses. As such, the method and system of the claims would have been *prima facie* obvious to one of skill in the art especially in the absence of evidence to the contrary.

Conclusion

No claim is allowed.

Claims 84, 93, 97, and 117 are objected to as depending from a rejected claim.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary K Zeman whose telephone number is (703) 305-7133. In January, after the move to the new facilities, the phone number will be: (571) 272-0723.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, can be reached at (703) 308-4028. In January, after the move to the new facilities, the phone number will be: (571) 272-0722.

The Official fax number for this Art Unit is: (703) 872-9306

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC1600 Receptionist whose telephone number is (703) 308-0196.

mkz
12/10/03

MARY K. ZEMAN
PRIMARY EXAMINER
AU 1631